In the Claims:

Claim 1. (currently amended) A composition for the detection of one or more target entities <u>present at low concentrations</u> in a mixture, said composition comprising non-magnetic microparticles or beads operably linked with a first binding partner ~~capable of binding~~ <u>bound</u> to a complementary second binding partner, said second binding partner being operably linked to ~~magnetic~~ <u>optimized, pre-coated paramagnetic</u> particles smaller than the average size of said non-magnetic particles, thereby to form a layer of ~~magnetic~~ <u>said pre-coated paramagnetic</u> particles on said non-magnetic microparticles, wherein said ~~magnetic~~ <u>pre-coated paramagnetic</u> particles bear ~~variable amounts of~~ free binding sites distal to the surface of said non-magnetic microparticles <u>having a streptavidin binding capacity from about 1 to 10 nmoles biotin/mg iron</u> and wherein the bound ~~magnetic~~ <u>pre-coated paramagnetic</u> particles are ~~capable of binding both a labeled first binding partner and said first binding partner either in its free form or operably linked to one or more entities including entities for capturing said target entities in the mixture~~ <u>bound to a first binding partner selected from a group consisting of a labeled first binding parter, a free form first binding partner, an operably linked binding partner to one or more entities including entities for capturing said target entities in the mixture, and combinations thereof</u>.

Claim 2. (original) The composition of claim 1, wherein said non-magnetic microparticles are unlabeled.

Claim 3. (original) The composition of claim 1 wherein said non-magnetic microparticals are detectably labeled.

Claim 4. (original) The composition of claim 1 wherein said first binding partner is a biotin species.

Claim 5. (original) The composition of claim 1 wherein said complementary second binding partner is an avidin species.

Claim 6. (currently amended) The composition of claim 1, wherein said free binding sites on said layer of ~~magnetic~~ <u>pre-coated paramagnetic</u> particles are capable of ~~directly or~~ indirectly binding <u>simultaneously with</u> at least three

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additional entities whereby said entities are selected from a group consisting of a single specific target entity and a plurality of specific target entities.

Claim 7. (currently amended)The composition of claim 6 wherein said additional entities are selected from the group consisting of: a) one or more target specific third binding partners operably linked to said first binding partner; b) one or more detectable labels linked to first binding partner, c) a biotin species with affinity for blocking residual binding sites on the second binding partner located on the ~~magnetic microparticles~~ <u>pre-coated paramagnetic</u> particles; and d) one or more detectably labeled target specific fourth binding partners which are capable of binding one or more epitopes on bound target entities.

Claim 8. (original) The composition of claim 7 wherein said third binding partner is an oligonucleotide probe operably linked to said first binding partner and wherein said probe is complementary to a target oligonucleotide sequence.

Claim 9. (original) The composition of claim 7 wherein said third binding partner is an antibody.

Claim 10. (original) The composition of claim 7, wherein said fourth binding partner is a target specific binder capable of recognizing epitopes on target entities different from those recognized by said third binding partner.

Claim 11. (original) The composition of claim 7, wherein the detectable label is a fluorescent compound.

Claim 12 (cancel)

Claim 13. (cancel)

Claim 14. (cancel)

Claim 15. (currently amended)A composition useful in the calibration of a diagnostic instrument system which utilizes fluorescent detection, said composition comprising ~~magnetic~~ <u>optimized, pre-coated paramagnetic</u> particles <u>pretreated with paraformaldehyde and</u> bound to ~~particles~~ <u>non</u>having a detectable fluorescent label, said ~~magnetic~~ <u>pre-coated paramagnetic</u> particles having an average size less than that of the particles having a detectable fluorescent label.

Claim 16. (currently amended) The composition of claim 15, wherein the ~~magnetic~~ <u>pre-coated paramagnetic</u> particles have an average size of less than 0.2 µm.

Claim 17. (currently amended)The composition of claim 15, wherein the ~~particles~~ <u>non-magnetic microparticles or beads</u> having a detectable fluorescent label ~~have~~ <u>and having</u> an average size of from about 1 to about 20 µm.